

Application No.: 10/035,056

Docket N .: JCLA8425-R

AMENDMENTS

In The Claims:

1. (Currently Amended) A non-linear optical material comprising a ~~metallie~~ pure bismuth film ~~capable of~~ that is sufficiently thin for producing non-linear refraction and non-linear absorption.

2. (Currently Amended) The non-linear optical material of claim 1, wherein the ~~metallie~~ pure bismuth film is formed by pulsed laser deposition.

3. (Currently Amended) The non-linear optical material of claim 1, wherein a thickness of the ~~metallie~~ pure bismuth film is approximately 10.5nm.

4. (Currently Amended) The non-linear optical material of claim 1, wherein the ~~metallie~~ pure bismuth film is covered by a top protective layer.

5. (Original) The non-linear optical material of claim 4, wherein the top protective layer is transparent.

6. (Original) The non-linear optical material of claim 4, wherein the top protective layer comprises Al_2O_3 .

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7. (Currently Amended) The non-linear optical material of claim 1, wherein the ~~metallic~~
pure bismuth film is disposed on a base layer.

8. (Original) The non-linear optical material of claim 7, wherein the base layer comprises
glass.

9. (Original) The non-linear optical material of claim 7, wherein the base layer comprises
quartz.

10. (Original) The non-linear optical material of claim 1, which is used as a non-linear
optical device in an optical method or in an optical apparatus.